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Latir et al.
US Appl. No.: 10/537,326

PROPOSED AMENDMENTS TO THE CLAIMS

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1. (Currently Amended) Preparing a plurality of plates which will define an interior tread pattern within a tire mold, said plates having an inner predetermined radius and an outer predetermined radius, comprising the steps of

a) machining at least one discrete region to a shallow depth on at least one side of the plates from its inner radius part way toward its outer radius,

b) thereafter stacking and securing the machined plates together with the inner radius of abutting plates extending in a circumferential direction and thereby producing first gaps at the discrete regions between the surfaces of adjacent plates, the first gaps extending outward substantially radially from the inner radius toward the outer radius,

c) forming second gaps at a depth and width greater than the first gaps and in a predetermined alignment to the first gaps in the outer full thickness region of the plates, to form vent passages between adjacent plates in a depth of approximately 0.060 inches and extending from the first gaps to the outer radius of the plates, and thus venting outward through the stacked plates to the back of the mold.

2. (Previously Presented) The method defined in claim 1, wherein during step (a) the discrete regions are machined to a depth in the order of 0.002 to 0.008

07076

Latif et al.
US Appl. No.: 10/537,326

inches.

3. (Previously Presented) The method defined in claim 1, wherein the majority of the plates are typically about 1,000 inch or less in thickness.

4. (Canceled)

5. (Previously Presented) The method defined in claim 2, wherein during step (a), said at least one discrete region extends from the inner radius toward the outer radius for approximately 1.00 inch or less.

6. (Original) The method defined in claim 1 wherein during step (b), the plates are stacked one upon the other over alignment pins.

7. (Original) The method defined in claim 6 wherein during the step (b), the alignment pins have threaded ends receiving threaded flathead fasteners when the full complement of plates is assembled.

8. (Previously Presented) The method defined in claim 1, wherein the plates are stacked and joined as two separate cooperative parts of a clam-shell mold.

9. (Previously Presented) The method defined in claim 1, wherein the plates are stacked and joined as discrete parts of a segmented mold.

10. (Original) The method defined in claim 1 wherein the interior radius

Page 2 of 6

Laird et al.
US Appl. No.: 10/537,326

07076

edges of the assembled plates are engraved with the pattern of a tire tread to be molded on a tire placed within the mold.

11 (Canceled)

12. (Canceled)

13 (Previously Presented) A mold as defined in claim 30, wherein the depth of the first set of machined regions being in the range of 0.002 to 0.008 inches and the vent passages have a size of approximately 0.060 inches.

14-20. (Canceled)

21 (Currently Amended) A method for preparing a plurality of plates which will define an interior tread pattern within a tire mold, said plates having an inner predetermined radius and an outer predetermined radius, comprising the steps of

a) machining at least one discrete region to a shallow depth on at least one side of the plates from its inner radius part way toward its outer radius,

b) thereafter stacking and securing the machined plates together with the inner radius of abutting plates extending in a circumferential direction and thereby producing first gaps at the discrete regions between the surfaces of adjacent plates, the first gaps extending outward substantially radially from the inner radius toward the outer radius;

Lair et al.
US Appl. No.: 10/537,326

07076

c) forming second gaps at a depth and width greater than the first gaps and in alignment to the first gaps, said second gaps extending from the first gaps to said outer radius to form vent passages between adjacent plates and thus venting outward through the stacked plates to the back of the mold.

22. (Previously Presented) The method defined in claim 21, wherein during step (a) the discrete regions are machined to a depth in the order of 0.002 to 0.008 inches.

23. (Previously Presented) The method defined in claim 22, wherein during step (a), said at least one discrete region extends from the inner radius toward the outer radius for 1.00 inch or less.

24. (Previously Presented) The method defined in claim 21, wherein the majority of the plates are 1.000 inch or less in thickness.

25. (Previously Presented) The method defined in claim 21, wherein during step (b), the plates are stacked one upon the other over alignment pins.

26. (Previously Presented) The method defined in claim 25, wherein during the step (b), the alignment pins have threaded ends receiving threaded flathood fasteners when the full complement of plates is assembled.

27. (Previously Presented) The method defined in claim 21, wherein the plates are stacked and joined as two separate cooperative parts of a clam-shell

Lahr et al.
US Appl. No.: 10/537,326

07076

mold.

28. (Previously Presented) The method defined in claim 21, wherein the plates are stacked and joined as discrete parts of a segmented mold.

29. (Previously Presented) The method defined in claim 21 wherein the interior radius edges of the assembled plates are engraved with the pattern of a tire tread to be molded on a tire placed within the mold.

30. (Currently Amended) A mold for the formation of tread patterns on tires comprising:

a plurality of mold sections each including a plurality of machined arcuate or annular plate-like parts, said machined parts having (a) an outer radius and (b) an inner radius extending in a circumferential direction and having a first set of machined regions in a minor portion of their faces extending outward from the inner radius toward said outer radius, said machined parts assembled and secured face to face in a stack, the parts having substantially common inner and outer radii and defining a set of gaps between adjacent plates of the assembled plate-like parts,

the plurality of plate-like parts also having a second set of machined regions adjacent to and opening into the radially outward edges outer radius of the assembled plate-like parts defining radially extending vent passages between adjacent plates larger than and aligned with said gaps and extending from the

Lahr et al.
US Appl. No.: 10/537,326

07076

gaps to the outer radius of the plates, thereby providing outward venting of the stacked plates to the back of the mold, and

the radially inward edges of the assembled plate-like parts forming a surface having at least a portion of a tire tread mold formed thereon.